WHAT IS CLAIMED IS:

1. A method of recognizing offices of a ring network having first and second network connecting offices for connecting ring networks together and for dropping a

5 signal from a terminal office, comprising the steps of:

recognizing at each node of the ring network, based upon channel setting information, which office the node is;

executing a procedure, which is for creating

10 squelch tables of working and protection channels based upon the channel setting information, between a first node, which has been recognized as being the first network connecting office or the terminal office, and other nodes;

15 identifying a second node, which is the second network connecting office, at the first node by the procedure for creating a squelch table of the protection channel;

sending office identification information, upon

20 embedding this information in the squelch table of the protection channel, from the first node to the second node; and

recognizing, at the second node, that this node is the second network connecting office based upon the

25 office identification information.

2. The method according to claim 1, further comprising a step of constructing a ring topology;

wherein said second node determines whether it is a

second network connecting office of an arrangement in which the terminal office exists outside first and second network connecting offices, or a second network connecting office of an arrangement in which a terminal

5   office exists intermediate first and second network connecting offices, this determination depending upon whether two offices consisting of a source office and a destination office that have been entered in a source-office name field and a destination-office name field,

10 respectively, of the squelch table are arrayed in a sequence that agrees with an array sequence of the offices in the ring topology.

3. The method according to claim 1, wherein in an arrangement in which the terminal office exists outside

15 the first and second network connecting offices, a node recognized as being the first network connecting office is said first node.

4. The method according to claim 1, wherein in an arrangement in which the terminal office exists

20 intermediate the first and second network connecting offices, a node recognized as being the terminal office is said first node.

5. The method according to claim 1, wherein in a network arrangement in which first and second ring

25 networks are connected via an intermediate ring network in which a channel is unterminated, said method of recognizing offices is applied to office recognition of first and second network connecting offices of the

intermediate ring network for connection to the first

ring network and to office recognition of third and

fourth network connecting offices of the intermediate

ring network for connection to the second ring network;

5   and

office recognition of the entire intermediate ring

network is performed by sending and receiving squelch

tables, in which office identification information has

been embedded, between a network connecting office on

10   the side of the first ring network and a network

connecting office on the side of the second ring network.

6. A method of recognizing offices of a ring network

having first and second network connecting offices for

connecting ring networks together and for dropping a

15   signals from a terminal office, comprising the steps of:

recognizing at each node of the ring network, based

upon channel setting information, whether the node is

the first network connecting office of an arrangement in

which the terminal office exists outside the first and

20   second network connecting offices;

executing a procedure, which is for creating

squelch tables of working and protection channels based

upon the channel setting information, between a first

node, which has been recognized as being the first

25   network connecting office, and other nodes;

identifying a second node, which is the second

network connecting office, at the first node by the

procedure for creating a squelch table of the protection

channel;

sending office identification information, upon embedding this information in the squelch table of the protection channel, from the first node to the second

5   node; and

recognizing, at the second node, that this node is the second network connecting office based upon the office identification information.

7.   The method according to claim 6, wherein the office

10   identification information is information specifying a range of the working channel obtained when a squelch table of the working channel is created; and

on the basis of this information, said second node recognizes that it is the second network connecting

15   office and recognizes which node is the first network connecting office and which node is the terminal office.

8.   The method according to claim 7, wherein the information specifying the range of the working channel is office identification information of the first

20   network connecting office and of the terminal office;

the first node enters this information in a source-office name field and a destination-office name field of the squelch table of the protection channel and sends the squelch table to the second node; and

25   the second node, by ascertaining that this office identification information is different from its own office identification information, recognizes that it is the second network connecting office and recognizes the

first network connecting office and the terminal office.

9. The method according to claim 8, further comprising a step of constructing a ring topology;

wherein if an array sequence of two offices

5   consisting of a source office and a destination office that have been entered in a source-office name field and a destination-office name field, respectively, of the squelch table differs from an array sequence of the offices in the ring topology, said second node

10   determines that it is a second network connecting office of an arrangement in which the terminal office exists outside first and second network connecting offices.

10. A method of recognizing offices of a ring network having first and second network connecting offices for

15   connecting ring networks together and for dropping a signals from a terminal office, comprising the steps of:

recognizing at each node of the ring network, based upon channel setting information, whether the node is the terminal office of an arrangement in which the

20   terminal office exists intermediate the first and second network connecting offices;

executing a procedure, which is for creating squelch tables of working and protection channels based upon the channel setting information, between a first

25   node, which has been recognized as being the terminal office, and other nodes;

identifying a second node, which is the second network connecting office, at the first node by the

procedure for creating a squelch table of the protection
channel;

sending office identification information, upon
embedding this information in the squelch table of the
5   protection channel, from the first node to the second
node; and

recognizing, at the second node, that this node is
the second network connecting office based upon the
office identification information.

10   11. The method according to claim 10, wherein the
office identification information is information
specifying a range of the working channel obtained when
squelch tables of the working channel are created; and

on the basis of this information, said second node
15   recognizes that it is the second network connecting
office and recognizes which node is the first network
connecting office and which node is the terminal office.

12. The method according to claim 11, wherein the
information specifying the range of the working channel
20   is office identification information of the first
network connecting office and of the terminal office;

the first node enters this information in a source-
office name field and a destination-office name field of
the squelch table of the protection channel and sends
25   the squelch table to the second node; and

the second node, by ascertaining that this office
identification information is different from its own
office identification information, recognizes that it is

the second network connecting office and recognizes the first network connecting office and the terminal office.

13. The method according to claim 12, further comprising a step of constructing a ring topology;

5   wherein if an array sequence of two offices consisting of a source office and a destination office that have been entered in a source-office name field and a destination-office name field, respectively, of the squelch table differs from an array sequence of the

10   offices in the ring topology, said second node determines that it is a second network connecting office of an arrangement in which the terminal office exists intermediate first and second network connecting offices.